

KIC 010339975

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
010339975-01	OBS	No	0.933678	131.571275	39.8	4.537	8.2	7.0	0.95	5743	0.74	2573.05

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010339975-01	OBS	FP	0.00	1	0	1	1	LPP_DV—HALO_GHOST—EPHEM_MATCH

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

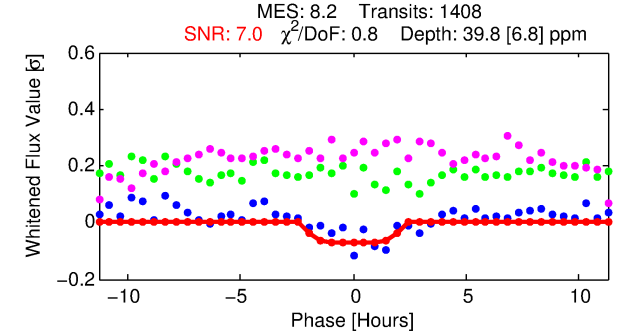
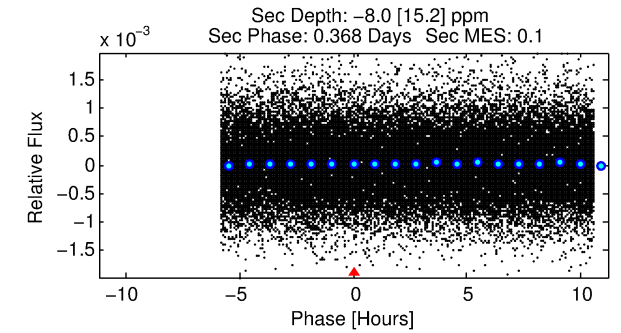
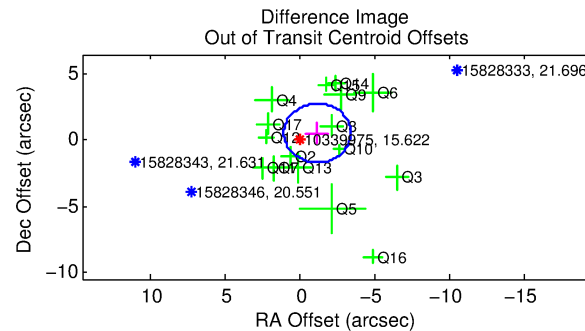
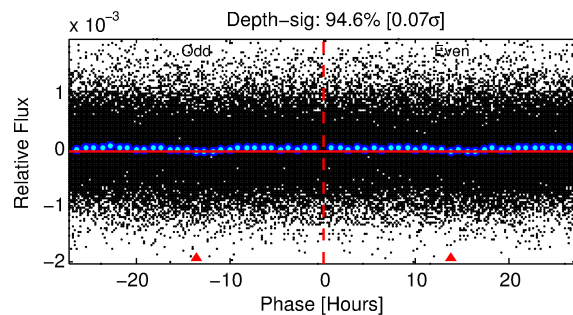
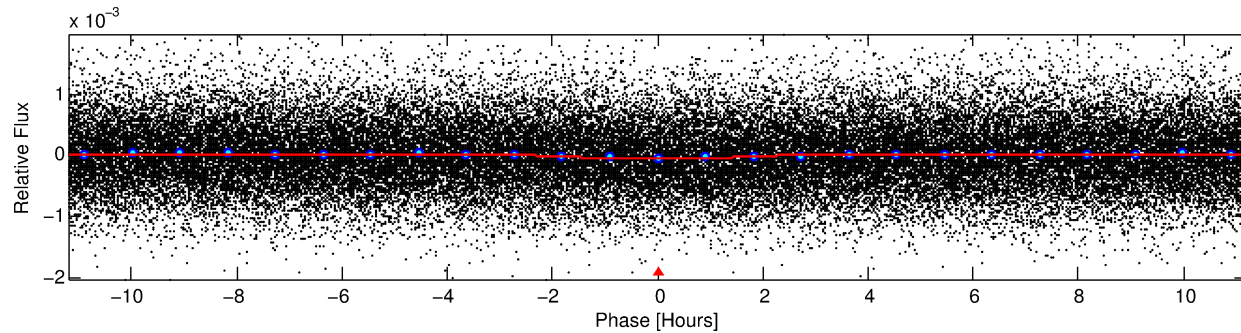
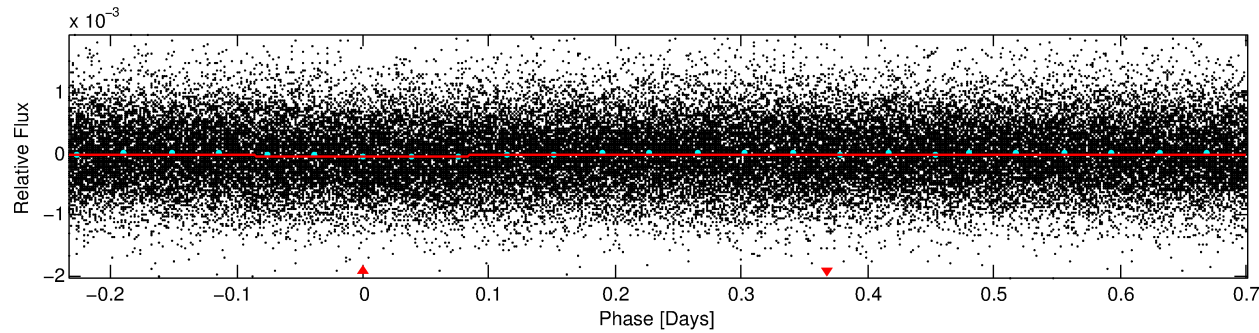
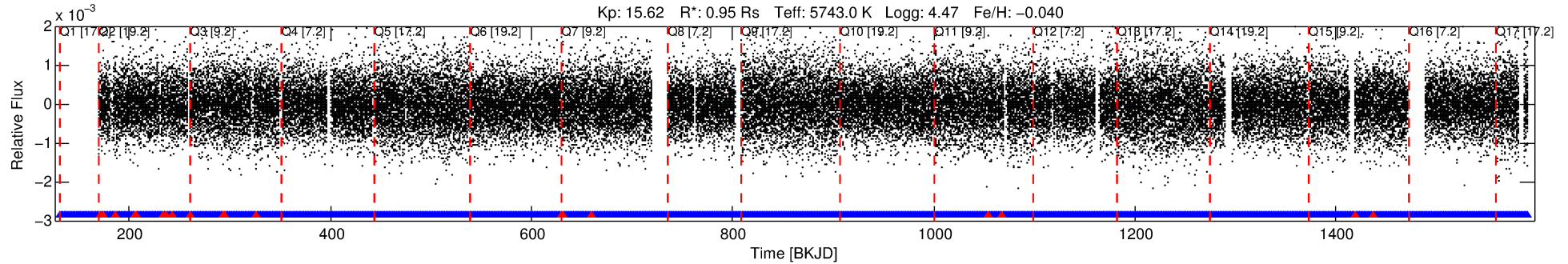
Ephemeris Match Information For 010339975-01

TCE (1)	KIC	Parent (2)	Parent KIC	P ₁ :P ₂	Dist (″)	Δ Row	Δ Col	m ₂	m ₁	D ₂ /D ₁	Mechanism	Flag	σ_P	σ_T
010339975-01	10339975	V2083-Cyg-pri	10342012	1:2	1956.2	263	-416	6.90	15.62	4958.00	Direct-PRF	0	1.04	2.77

Notes: P₁:P₂ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m₂ and m₁ are the magnitudes of the parent and child. D₂/D₁ is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 10339975 Candidate: 1 of 1 Period: 0.934 d



DV Fit Results:

Period = 0.93368 [0.00002] d
Epoch = 131.5713 [0.0076] BKJD
Rp/R* = 0.0072 [0.0046]
a/R* = 1.12 [0.76]
b = 0.94 [0.43]
Seff = 2573.05 [962.03]
Teq = 1816 [170] K
Rp = 0.74 [0.51] Re
a = 0.0184 [0.0044] AU
Ag = N/A
Teffp = N/A

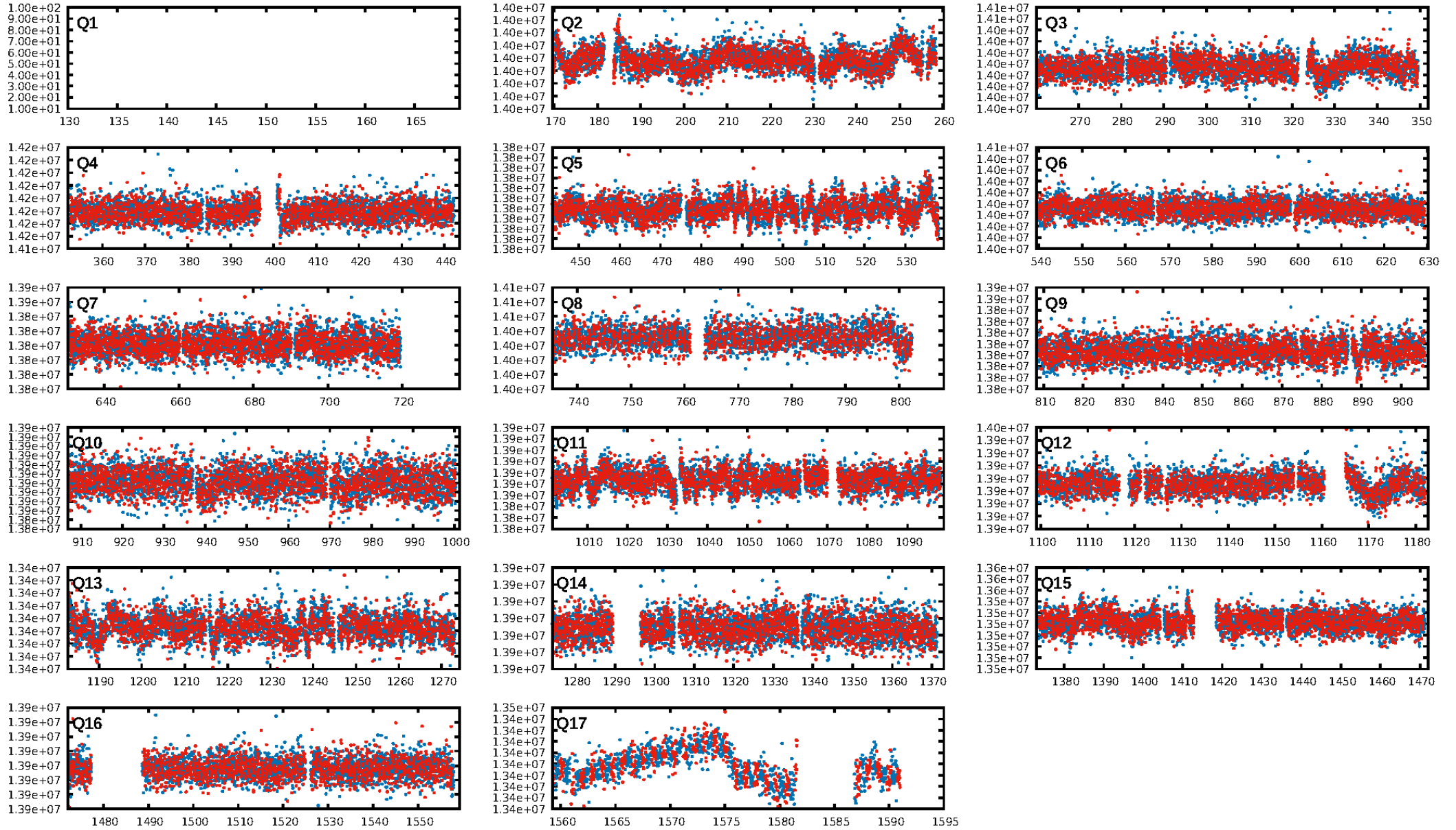
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.03e-16
RollingBand-fgt: 0.98 [1357/1378]
GhostDiagnostic-chr: 0.135
Centroid-sig: 1.3%
Centroid-so: 4.446 arcsec [1.85 σ]
OotOffset-rm: 1.316 arcsec [1.77 σ]
KicOffset-rm: 1.335 arcsec [1.80 σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 0.12 [2/16]
DiffImageOverlap-fno: 1.00 [16/16]

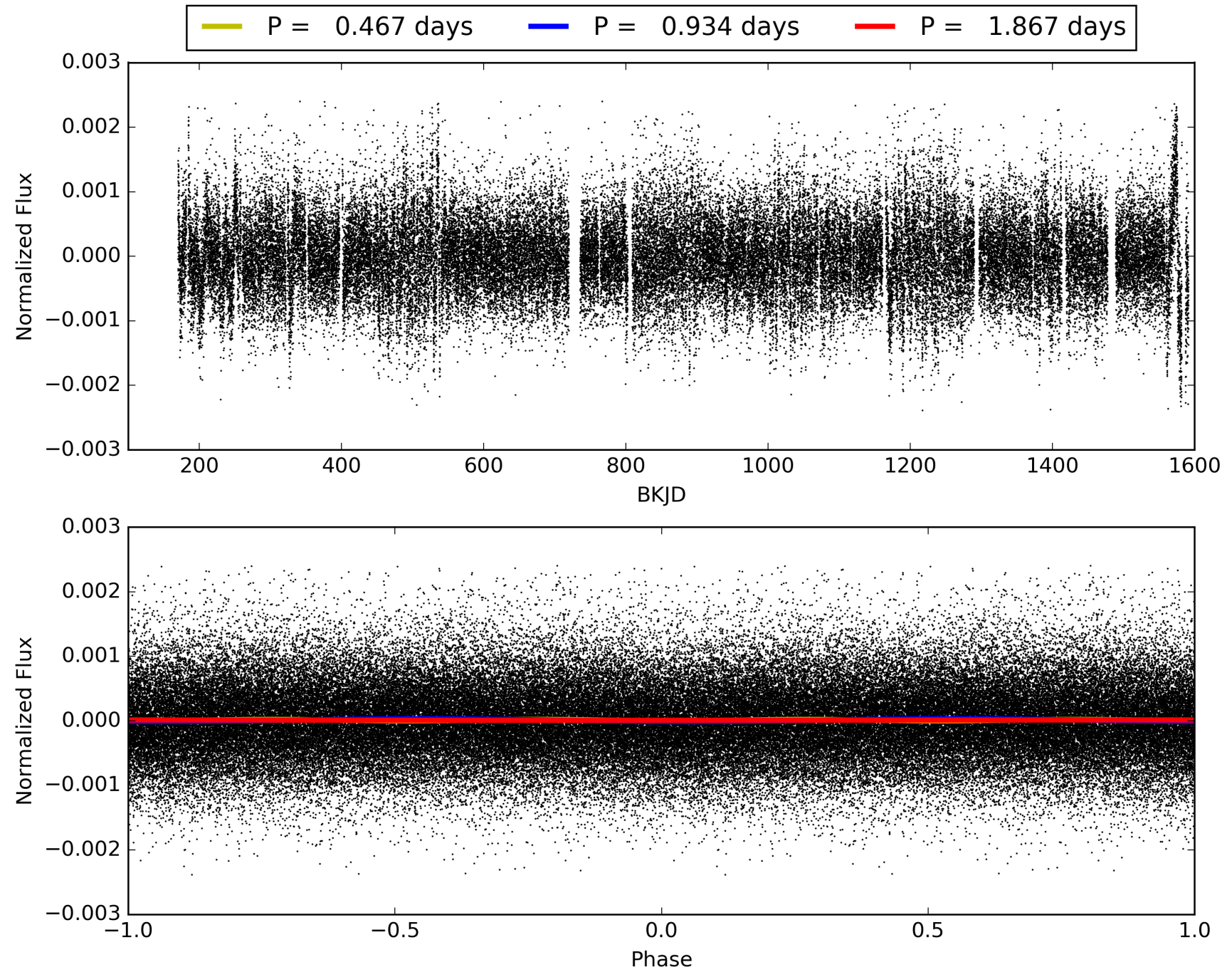
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 00:21:36 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 010339975-01, PDC Light Curves

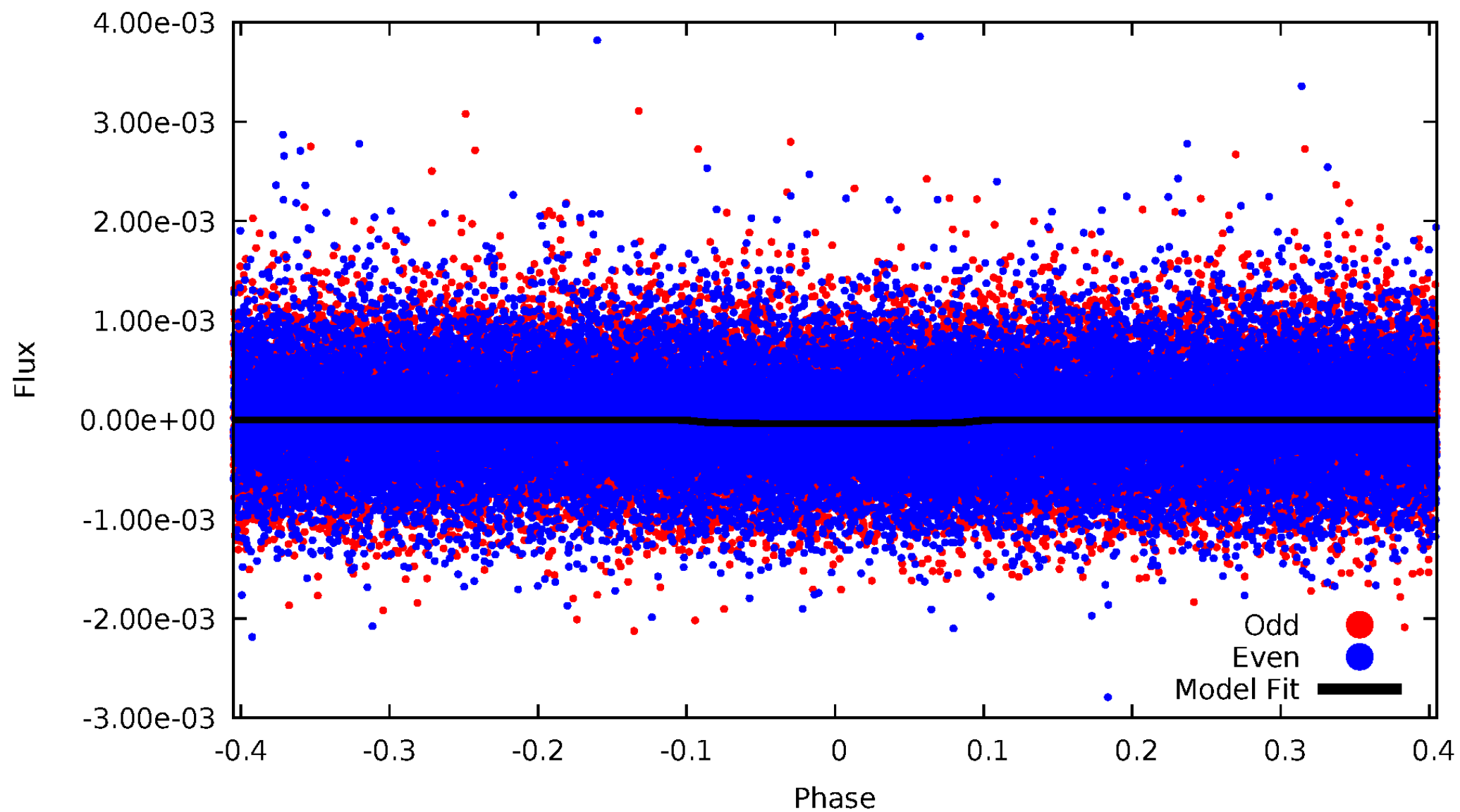


TCE 010339975-01



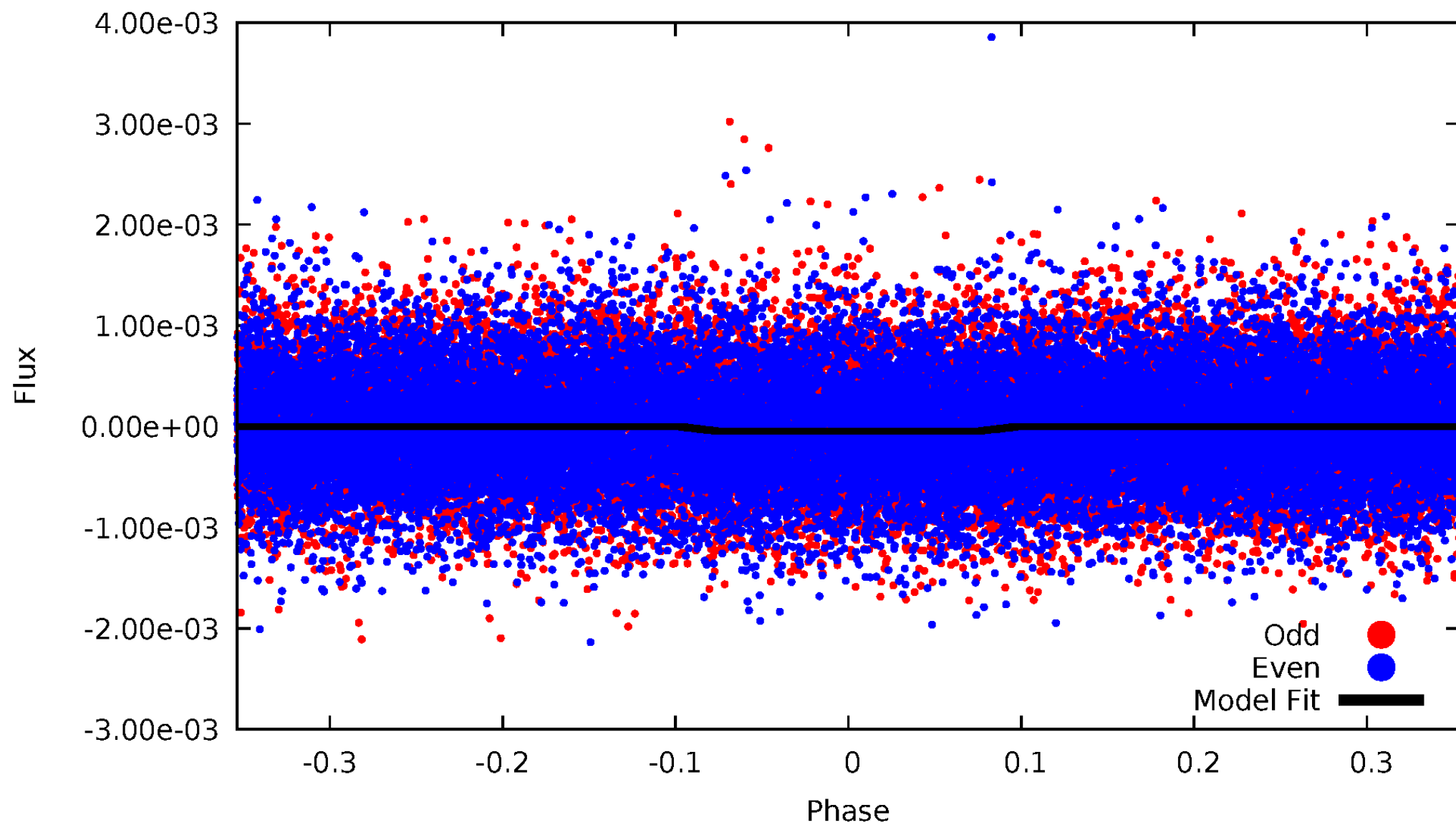
DV Odd/Even

TCE 010339975-01



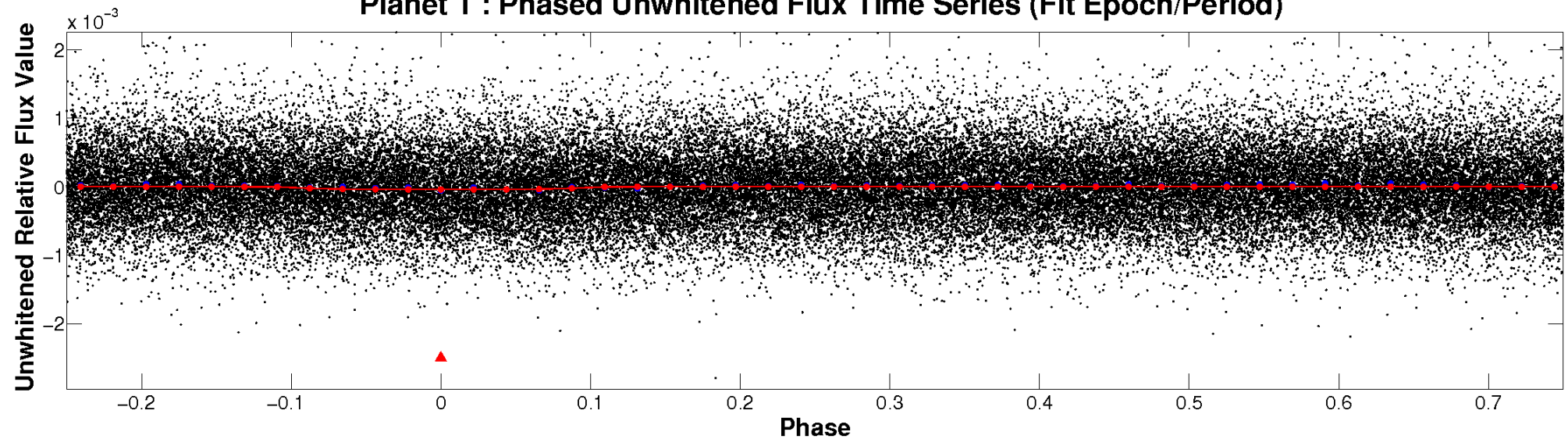
ALT Odd/Even

TCE 010339975-01

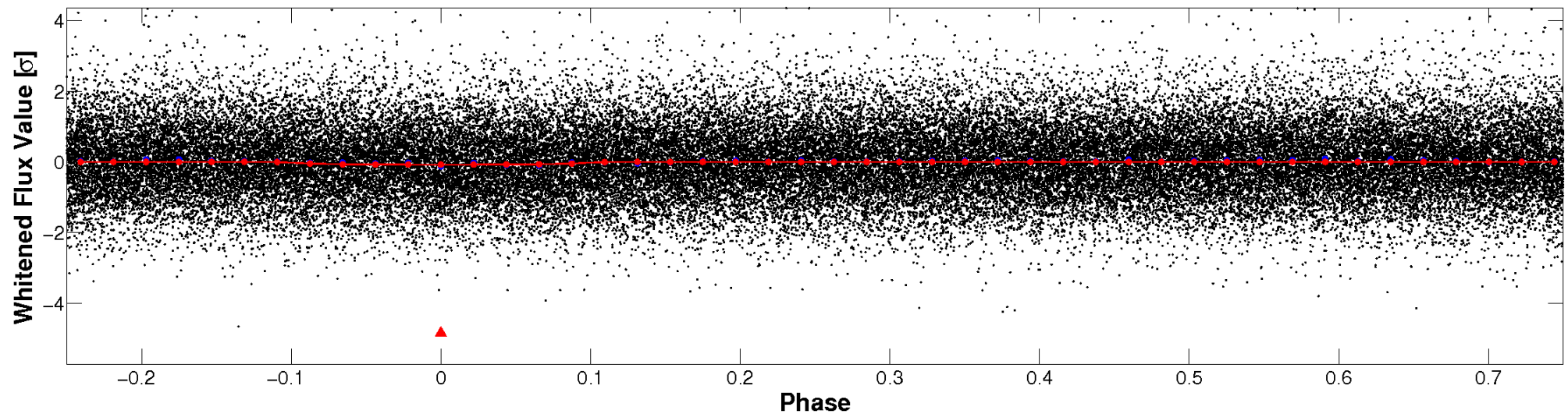


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

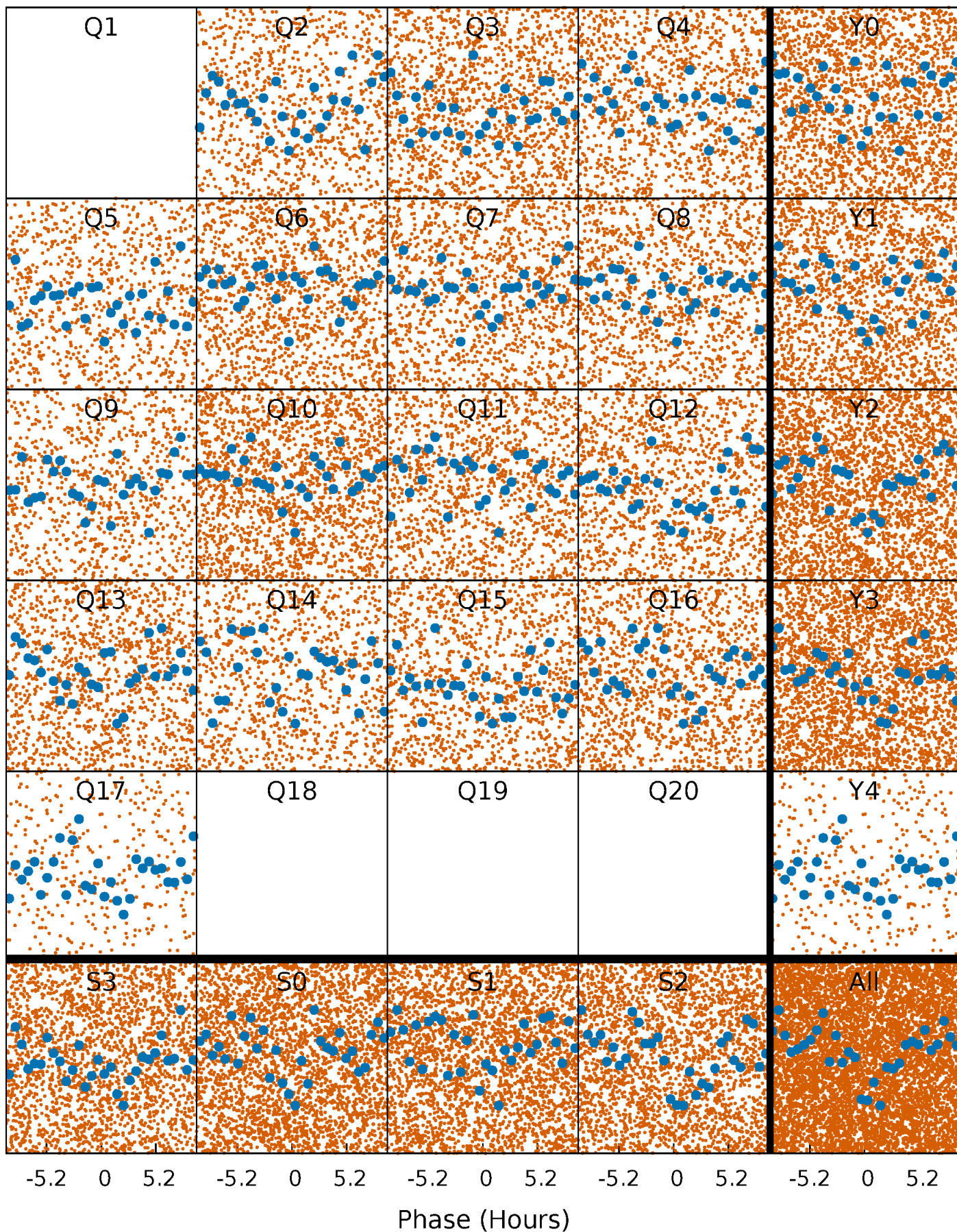


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



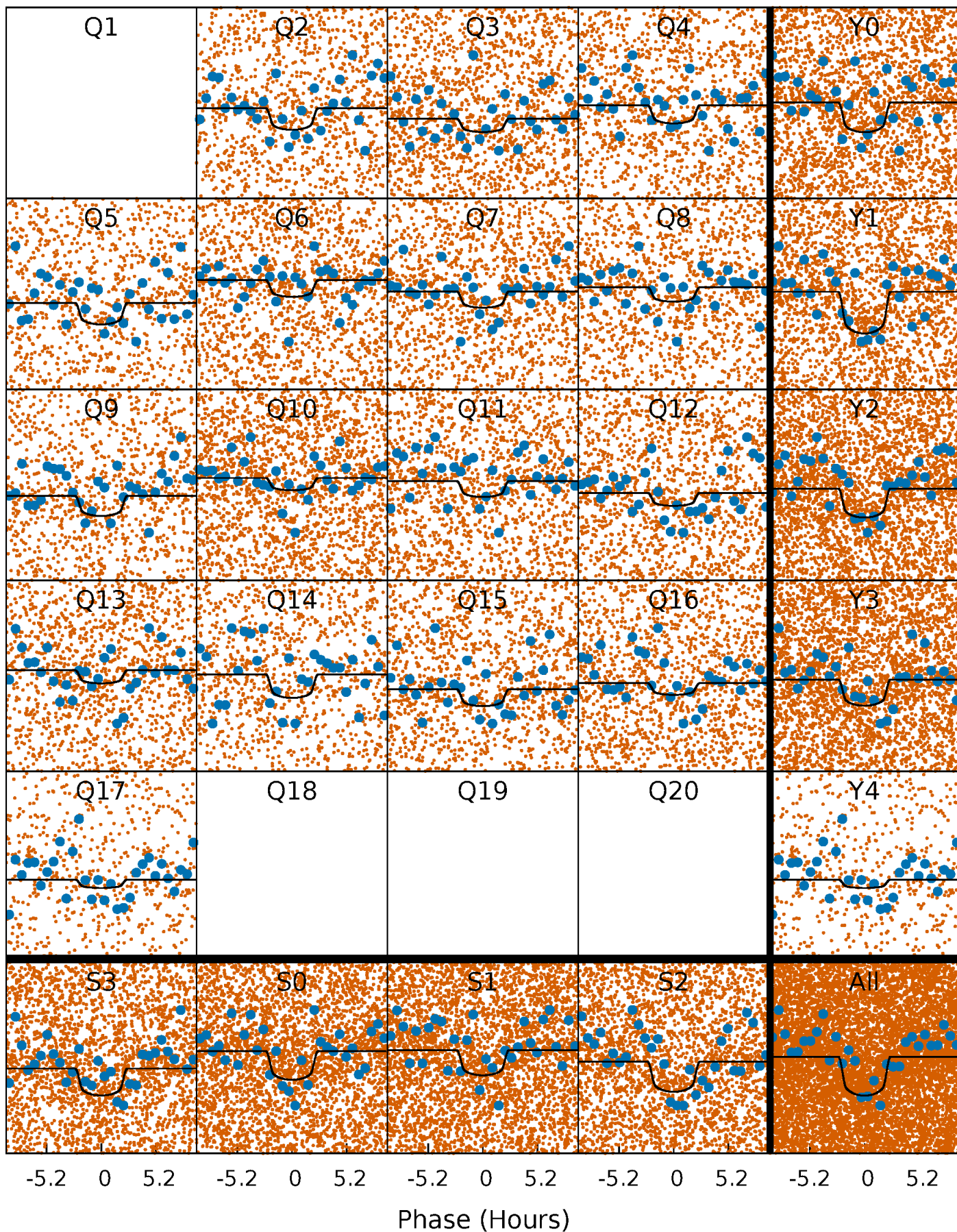
PDC Quarter-Phased Transit Curves

TCE 010339975-01 P= 0.933678 Days $T_0=131.571275$ (BKJD)



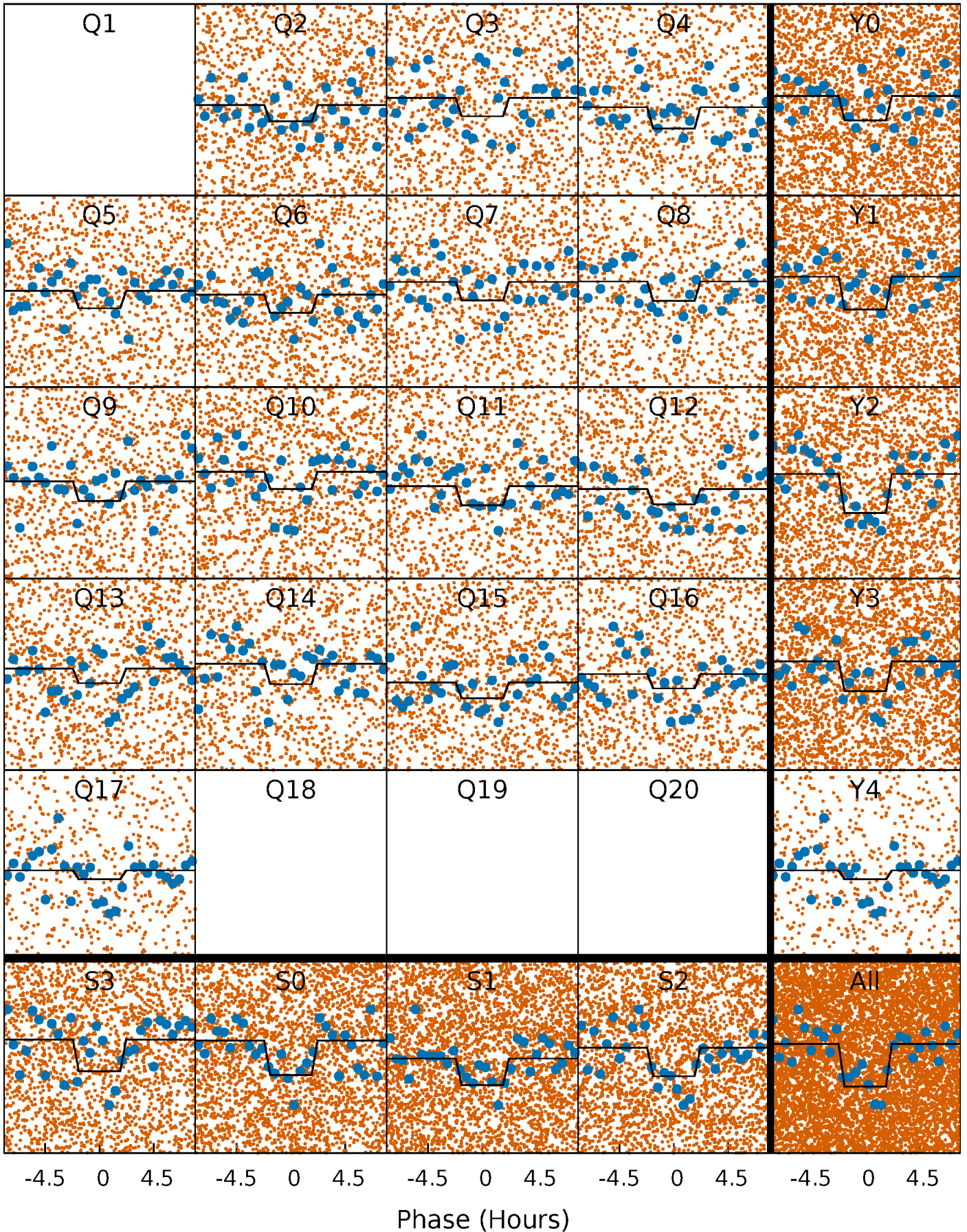
DV Quarter-Phased Transit Curves

TCE 010339975-01 P= 0.933678 Days $T_0=131.571275$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

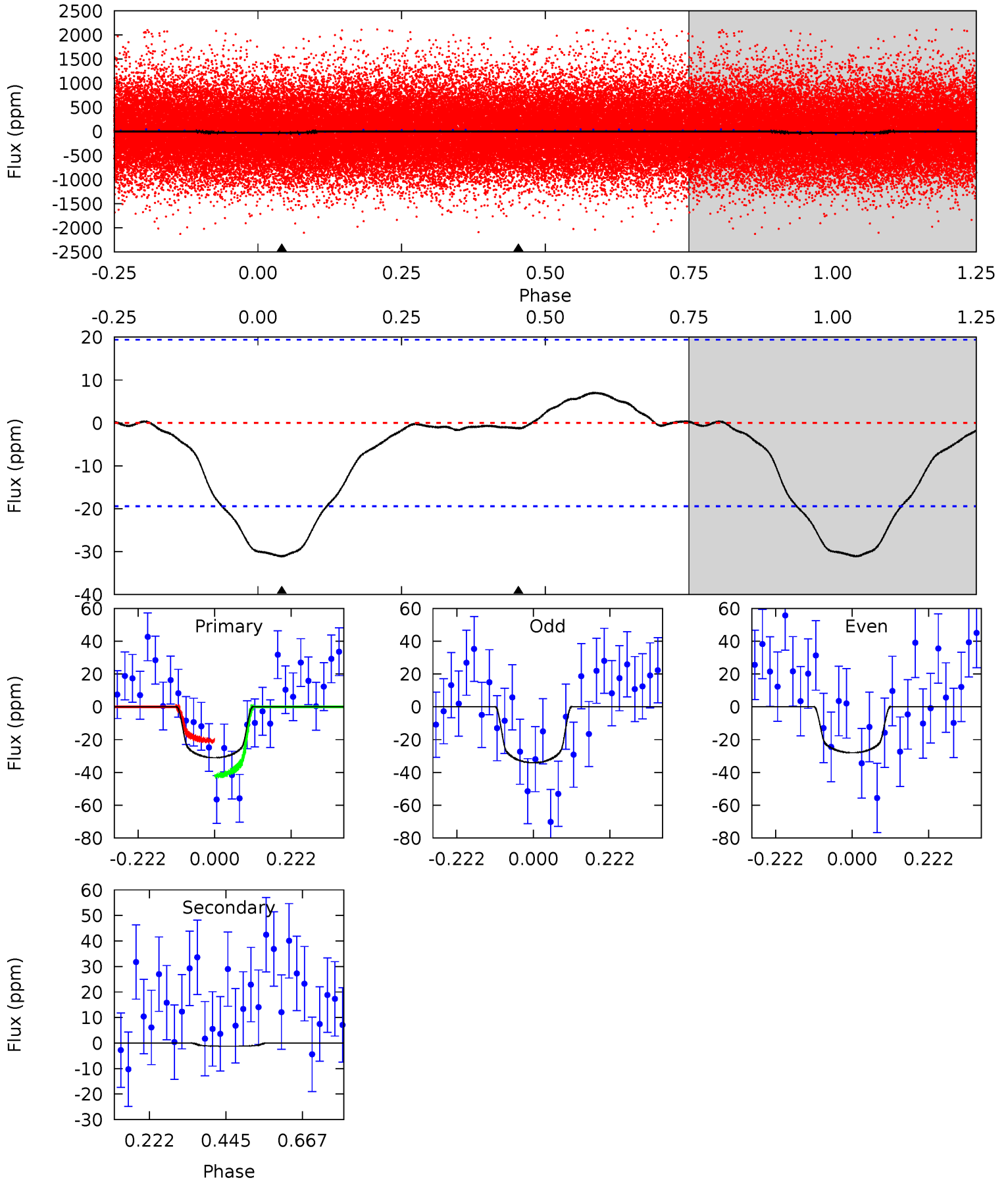
TCE 010339975-01 P= 0.933740 Days $T_0=131.525182$ (BKJD)



DV Model-Shift Uniqueness Test

010339975-01, P = 0.933678 Days, E = 131.571275 Days

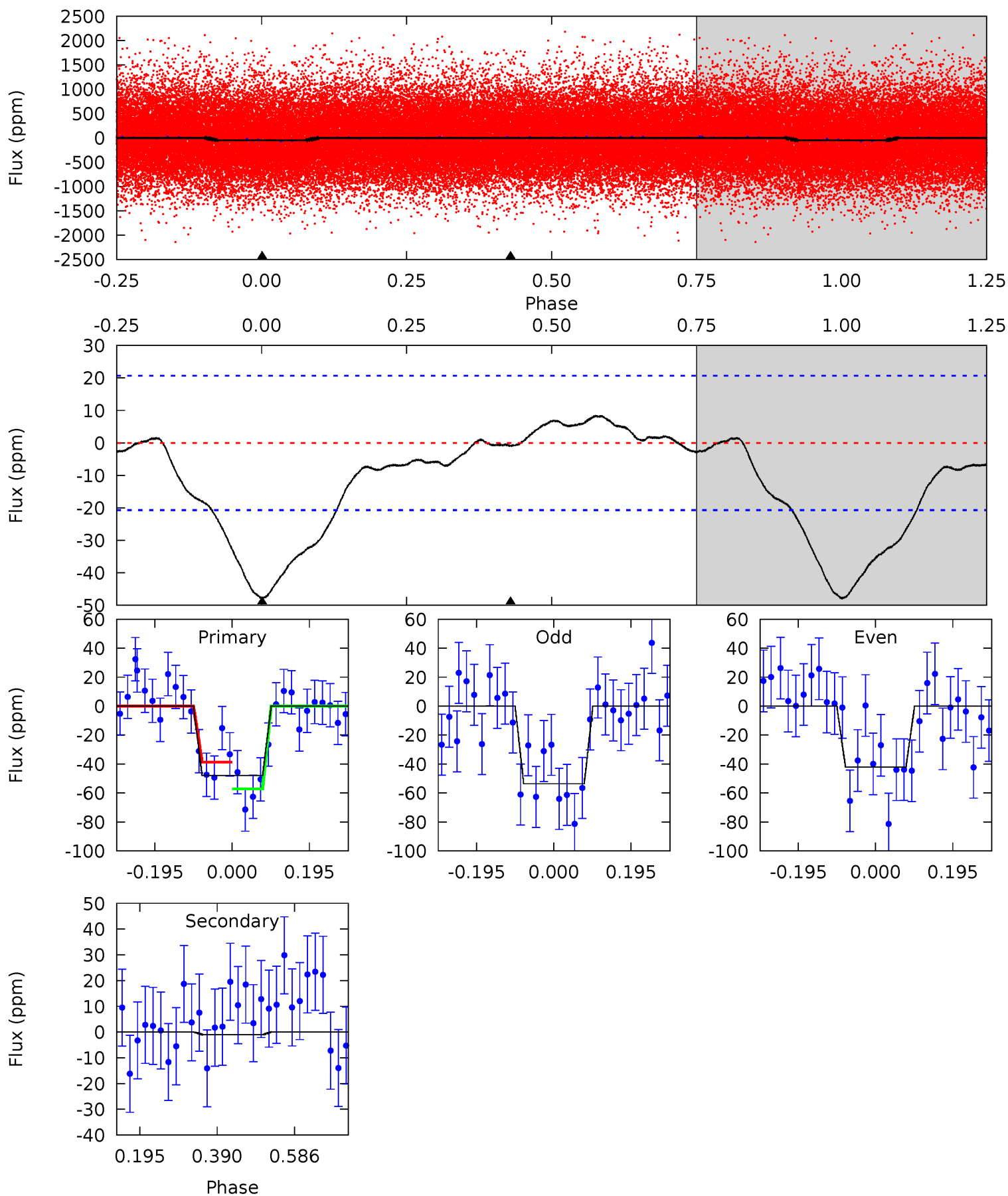
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.04	0.28	0	0	4.39	1.22	0.11	7.04	7.04	0.28	0.28	0.70	0.93	0.18	2.39



Alt Model-Shift Uniqueness Test

010339975-01, P = 0.933740 Days, E = 131.525182 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.2	0.21	0	0	4.42	1.30	0.73	10.2	10.2	0.21	0.21	1.22	0.92	0.15	1.96



Stellar Parameters For KIC 010339975

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5743^{+156}_{-173}	$4.466^{+0.065}_{-0.195}$	$-0.040^{+0.250}_{-0.300}$	$0.946^{+0.268}_{-0.115}$	$0.953^{+0.114}_{-0.102}$	$1.587^{+0.543}_{-0.794}$
	+3%/-3%	+1%/-4%	+625%/-750%	+28%/-12%	+12%/-11%	+34%/-50%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 010339975-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1 ± 4	$0.81^{+0.54}_{-0.44}$	2588^{+173}_{-124}	-2323^{+6278}_{-1170}	$0.240^{+2.651}_{-1.089}$
Alt.	-1 ± 5	$0.78^{+0.49}_{-0.47}$	2577^{+167}_{-119}	-2236^{+6247}_{-1413}	$0.266^{+2.902}_{-1.519}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

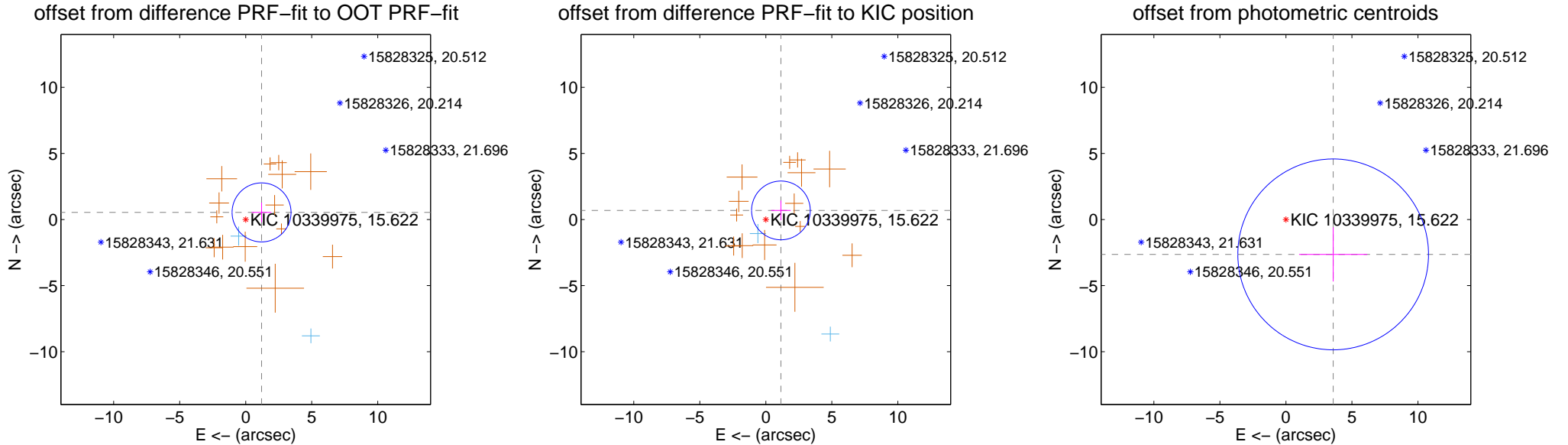
DV Centroid Data

Supplemental centroid analysis for 010339975-01. Kepler magnitude: 15.62. Transit SNR 6.97

There are 2 quarters with good PRF difference image offsets

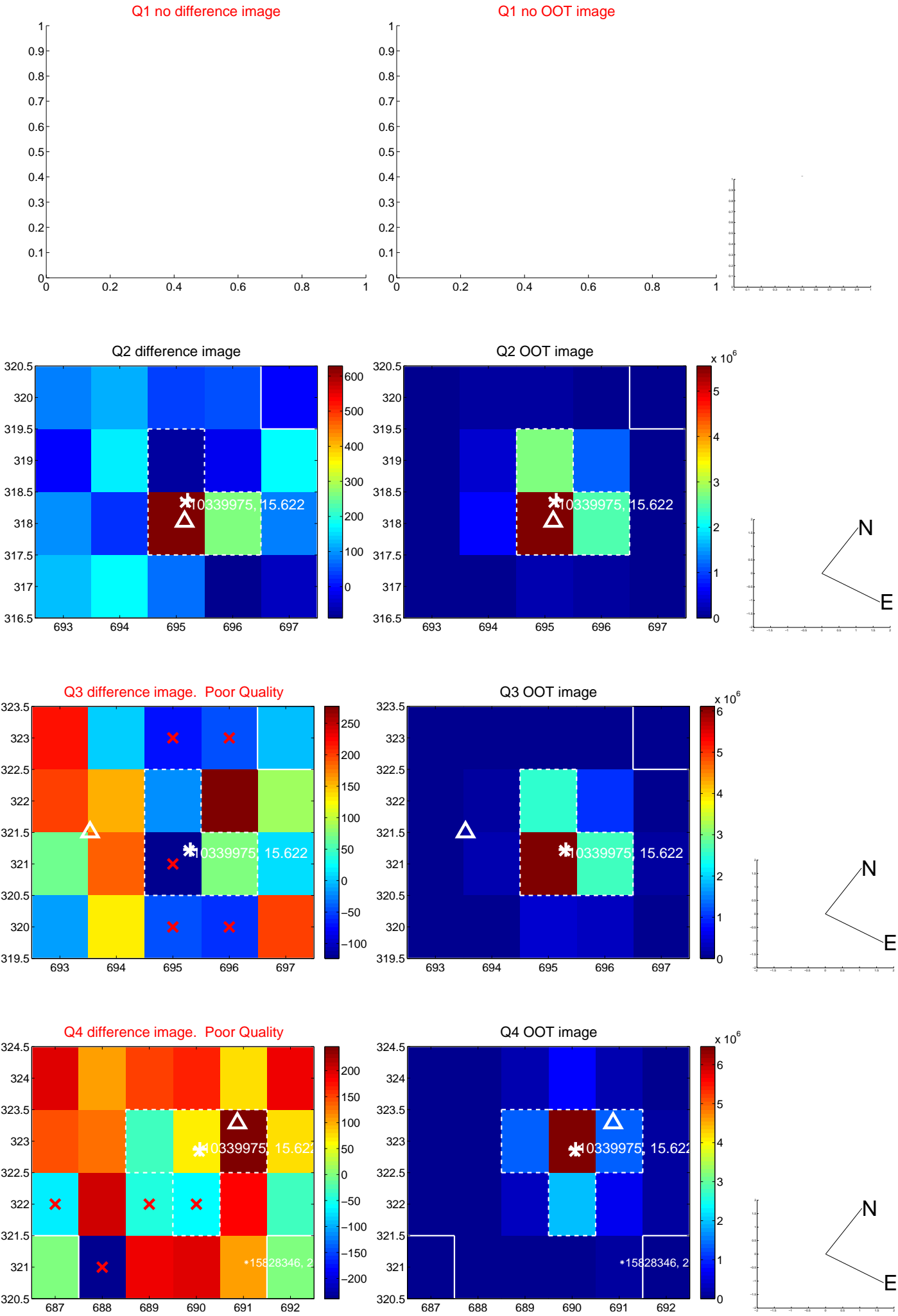
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.316 ± 0.744	1.77	-1.201 ± 0.744	0.538 ± 0.743
PRF-fit source offset from KIC position	1.335 ± 0.741	1.80	-1.144 ± 0.740	0.688 ± 0.745
photometric centroid source offset	4.45 ± 2.41	1.85	-3.58 ± 2.58	-2.64 ± 2.05

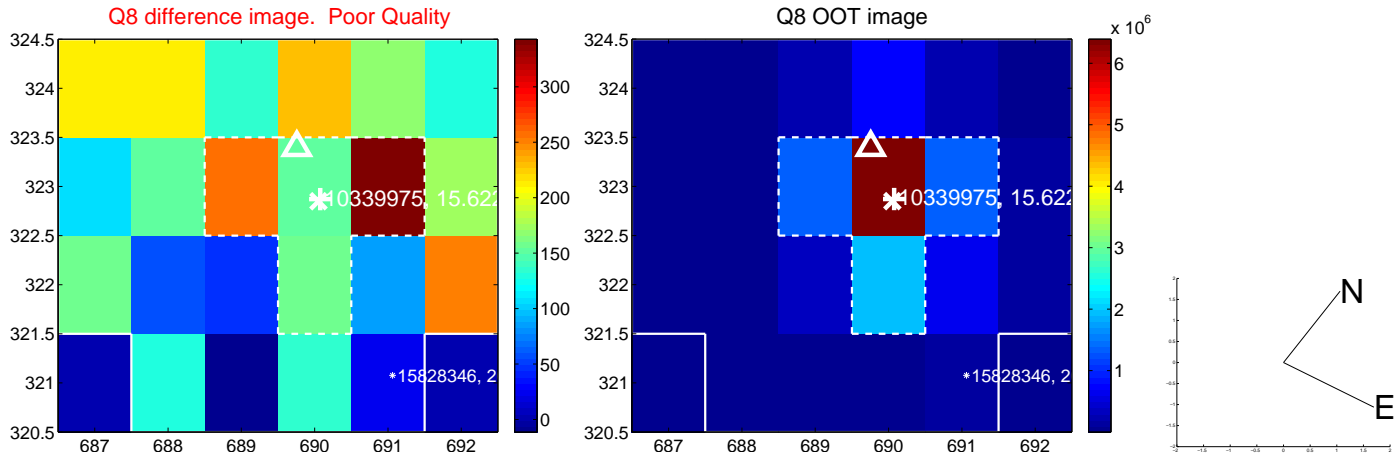
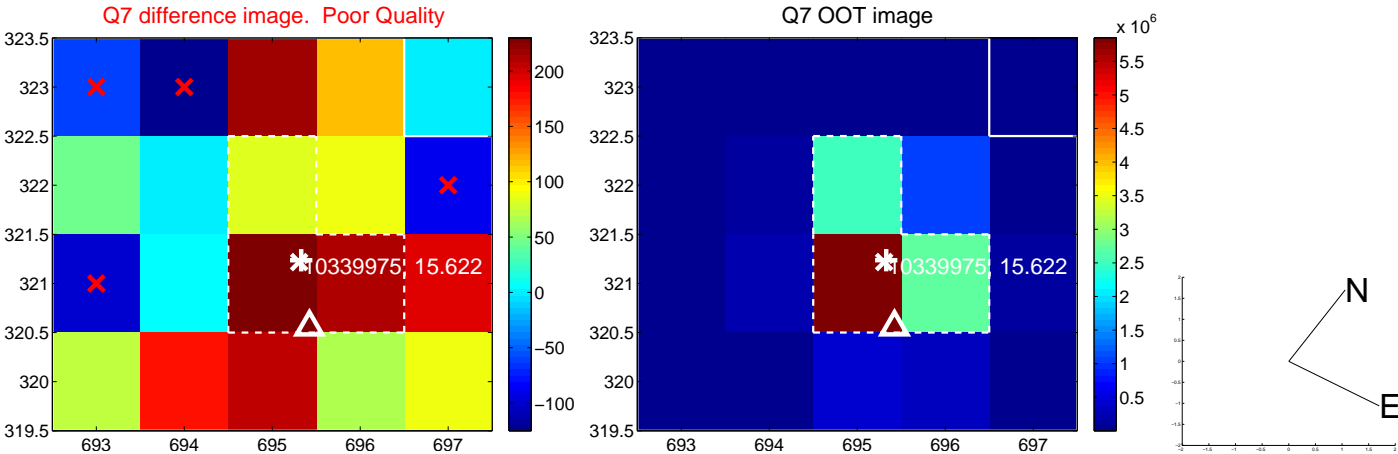
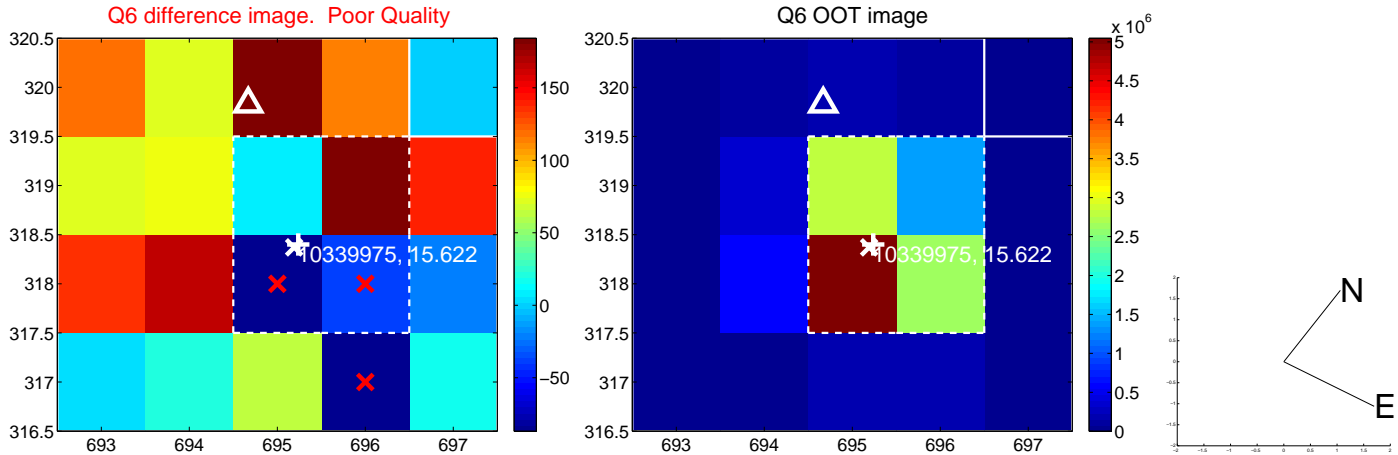
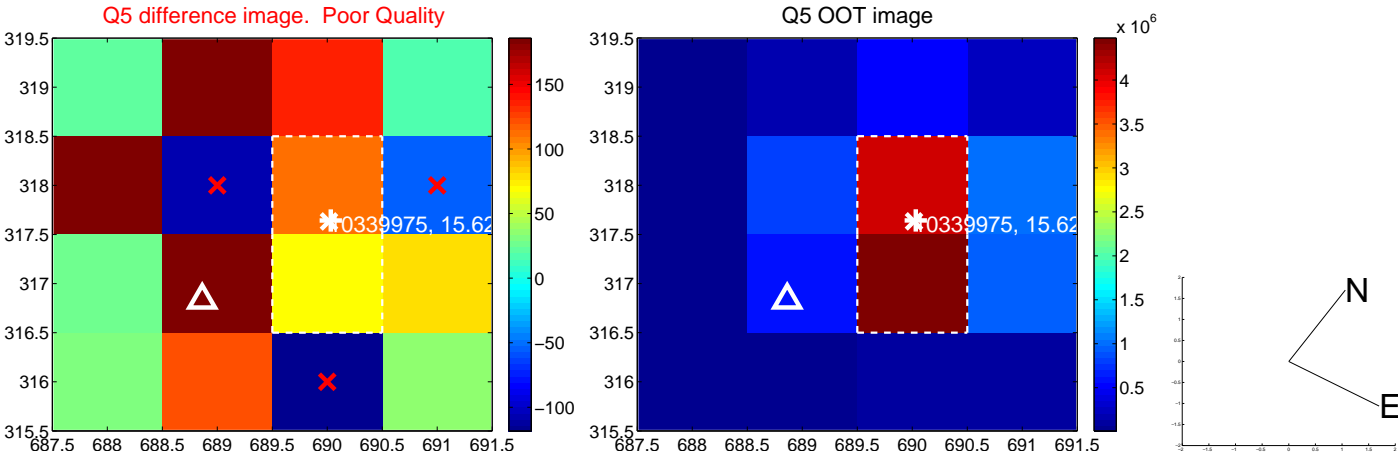


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

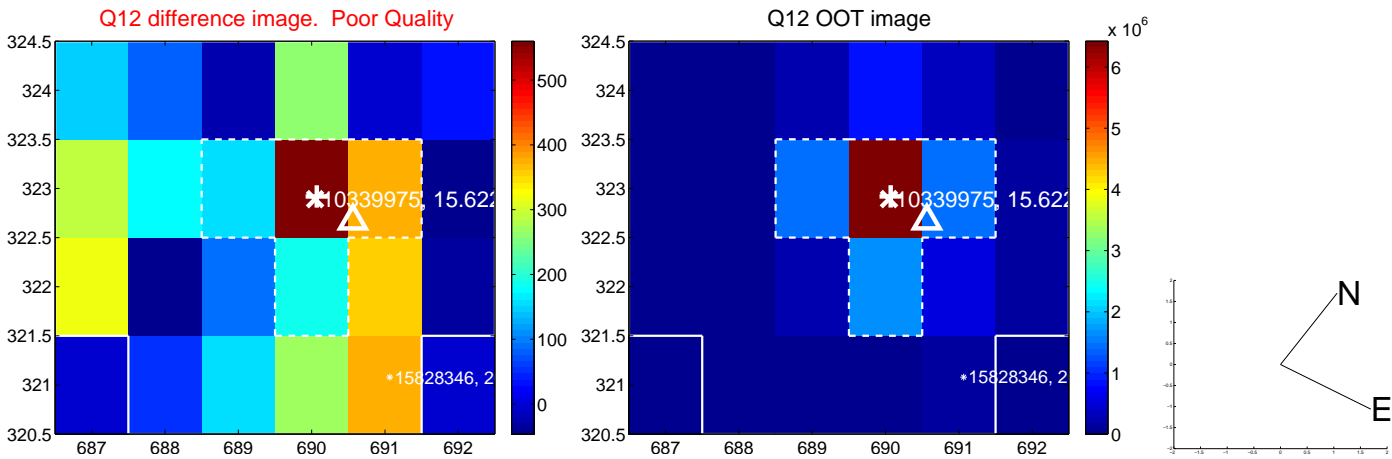
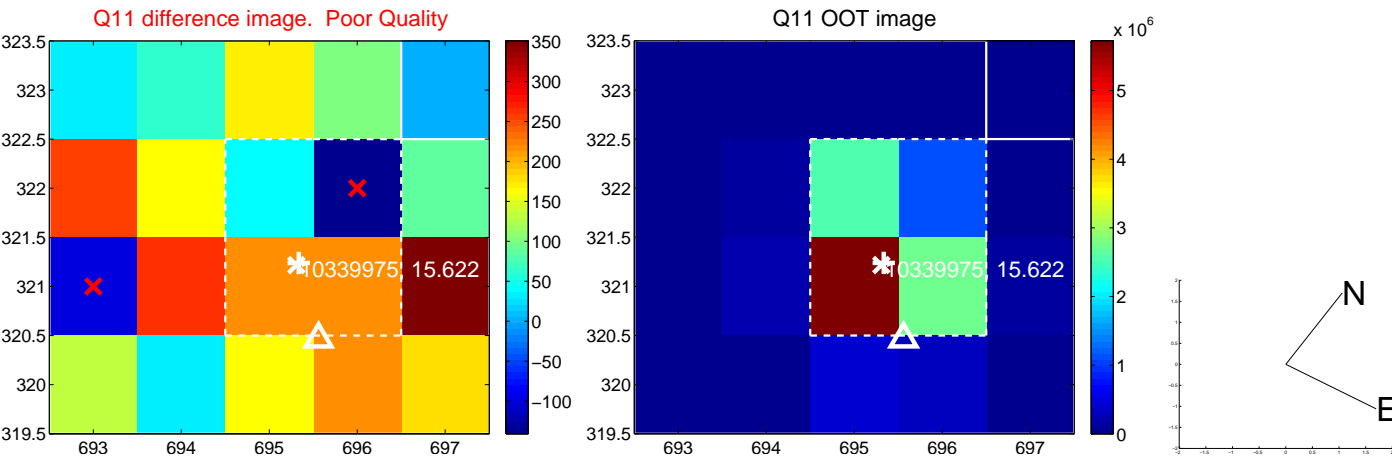
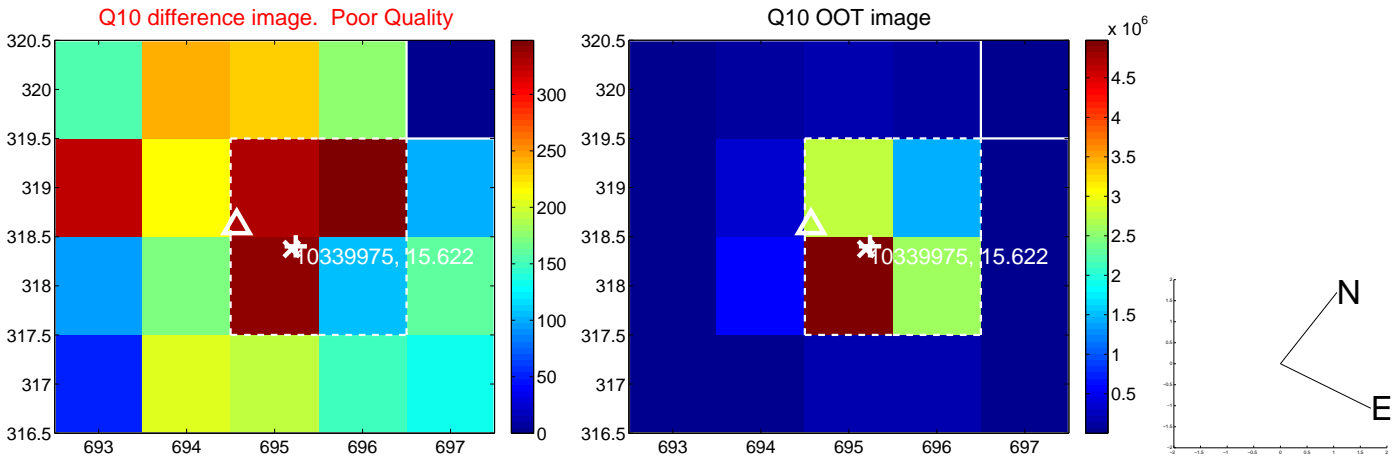
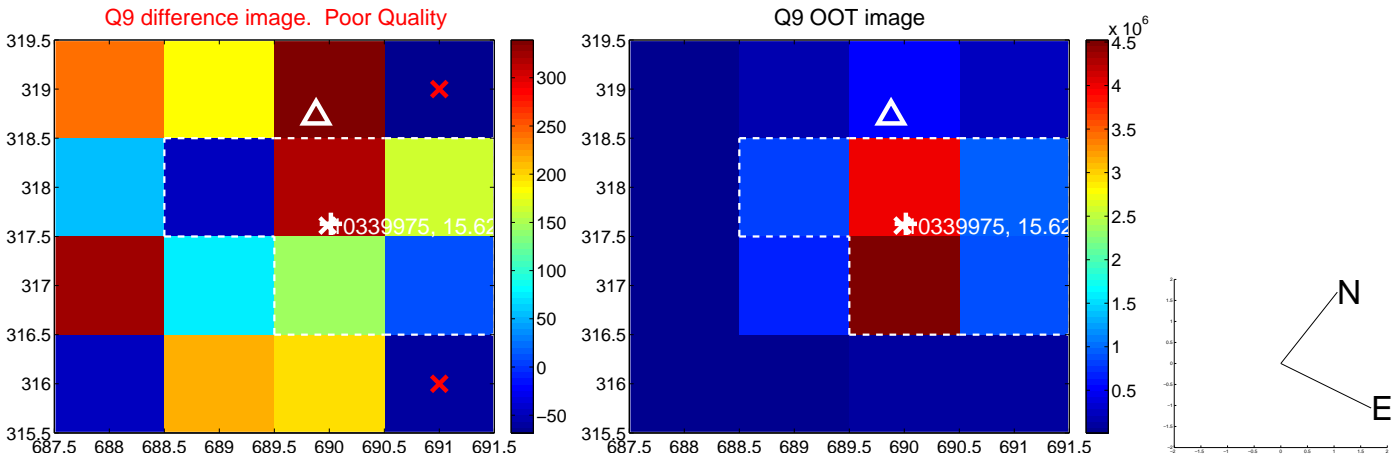
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



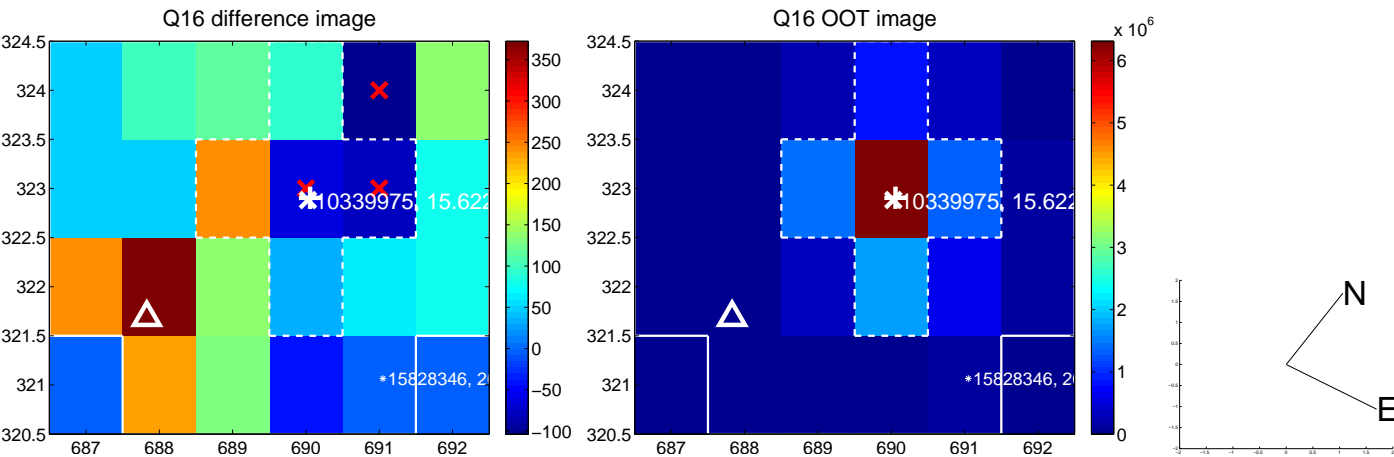
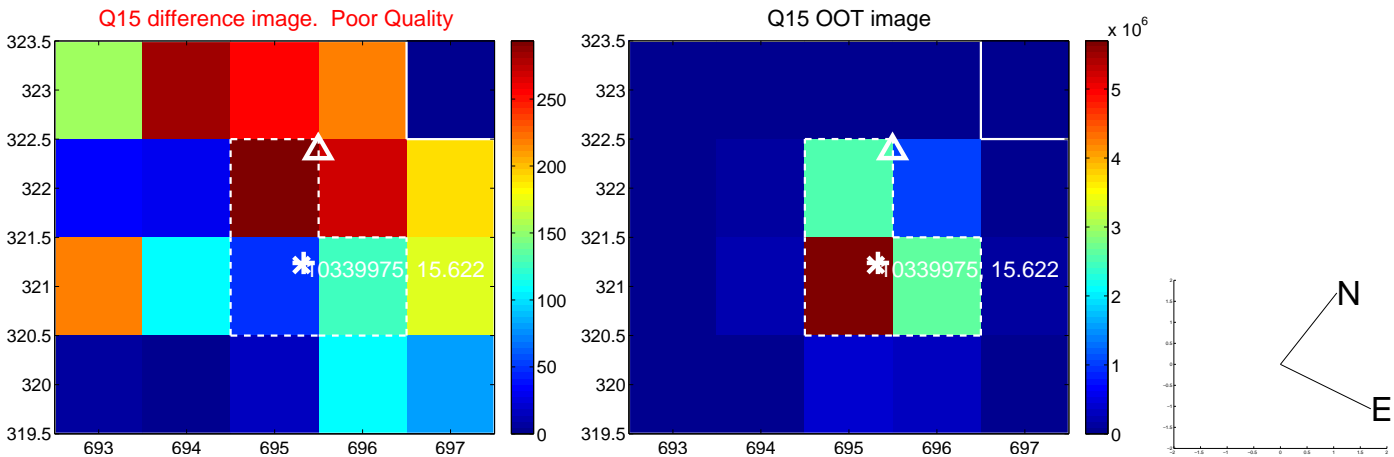
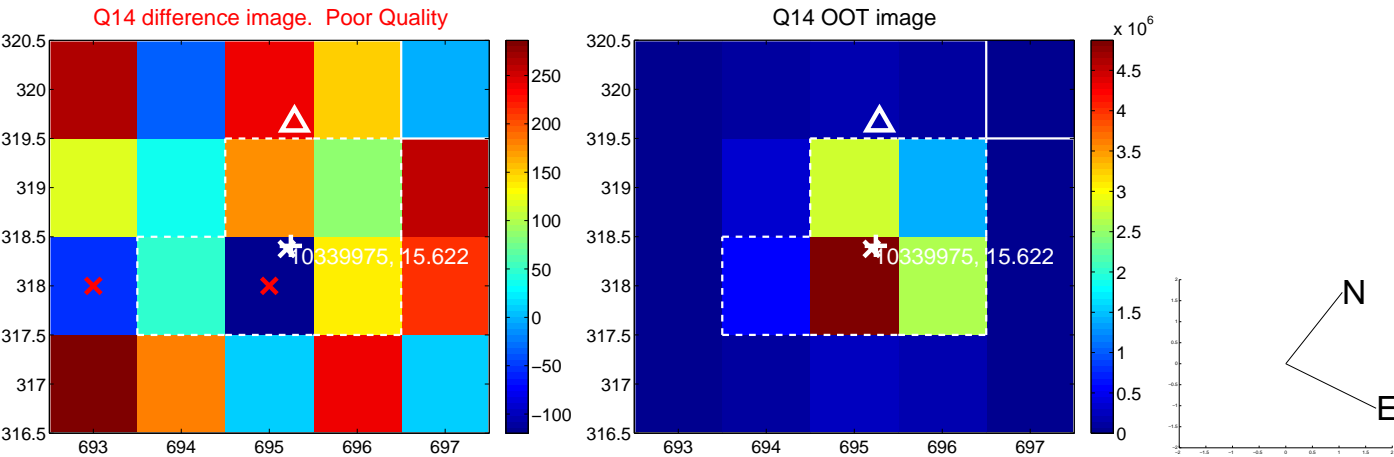
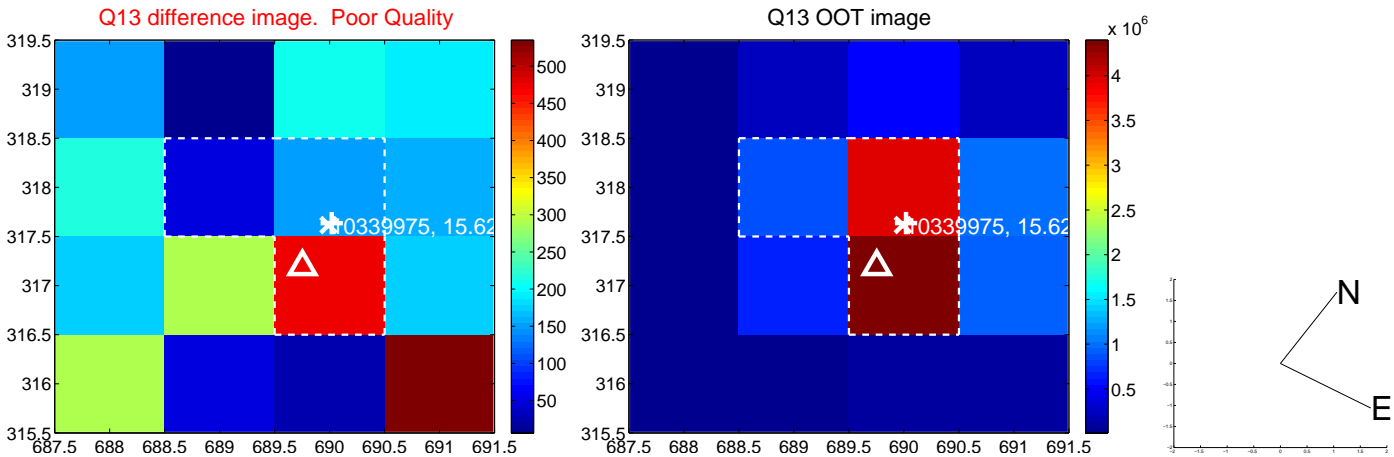
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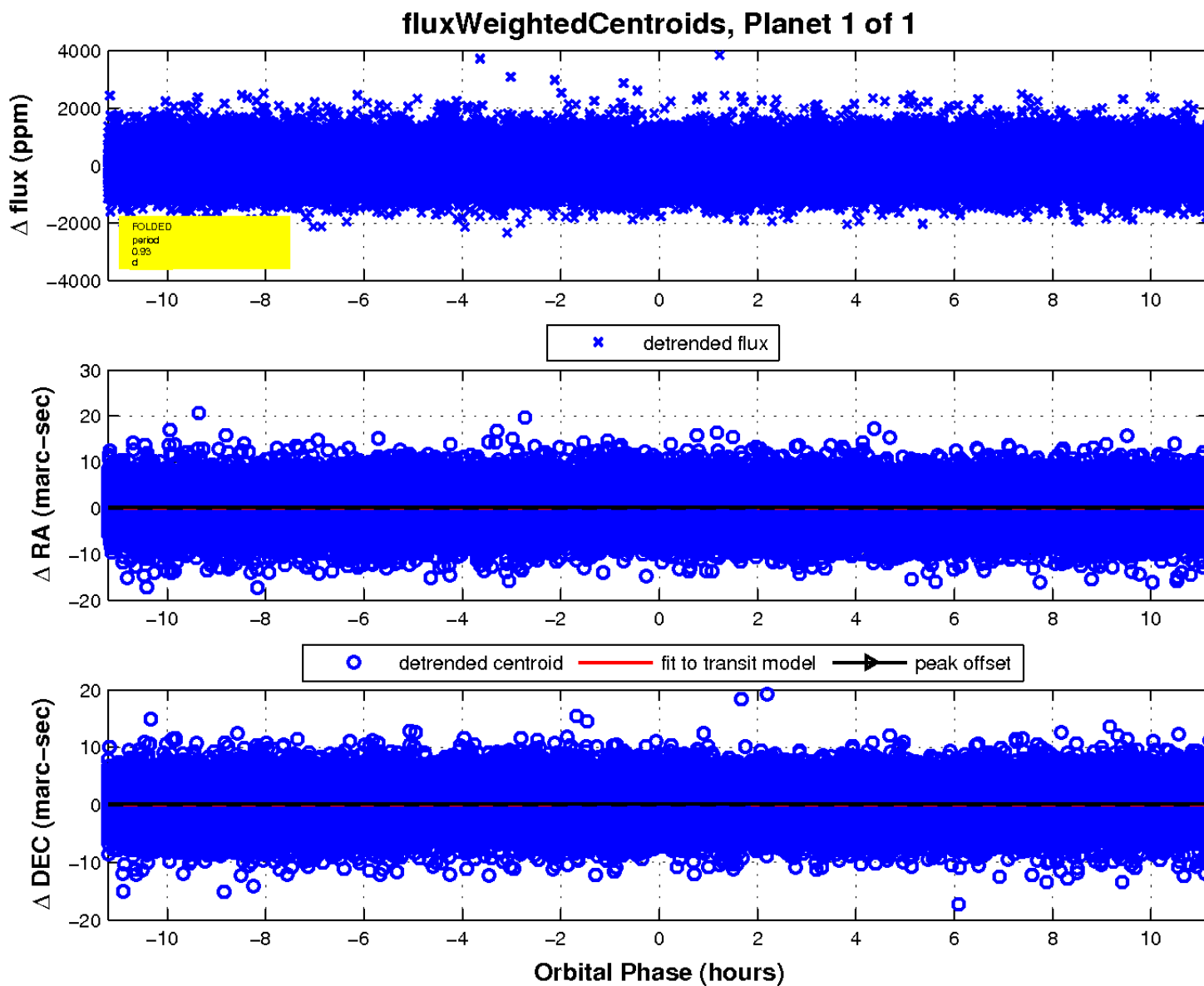
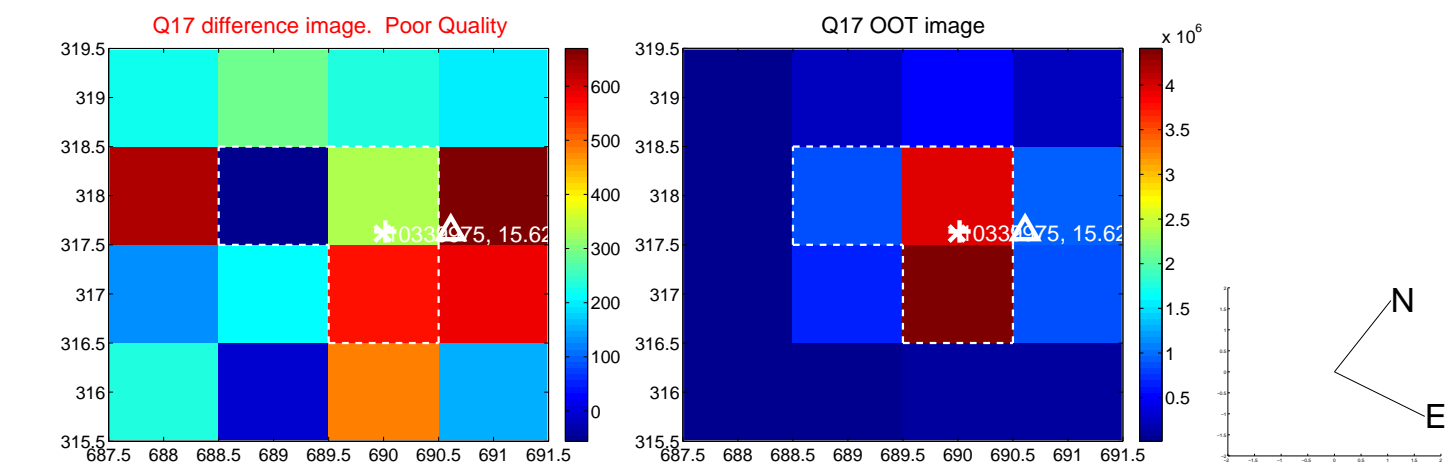
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UKIRT Image

Declination

